CCMR Shared Facility Rates - Industrial (for-profit) Use
(Effective February 1, 2020)

Manager Labor Rate (may be charged in addition to instrument rates below for assisted use) $158.00 /hr

Electron Microscopy
- Arctica-S/TEM $230.00 /hr
- Cryo-S/TEM available 4/15/2020
- FEI F20 TEM STEM $470.00 /hr
- FEI Strata 400 STEM FIB $315.00 /hr
- Thermo-Helios-G4-UX-FIB $315.00 /hr
- NION UltraSTEM 100 $522.00 /hr
- FEI Tecnai 12 BioTwin TEM $230.00 /hr
- Zeiss Gemini 500 SEM $230.00 /hr
- LEO 1550 FESEM (Keck SEM) $230.00 /hr
- Tescan-Mira3-FESEM $230.00 /hr

TEM Sample Preparation:
- Allied Multiprep Polishers $100.00 /hr
- Allied TechCut5 Precision High Speed Saw $130.00 /hr
- Leica EM UC7/FC7 Cryoultramicrotome $130.00 /hr
- Leica Ultracut UCT Ultramicrotome - RT $130.00 /hr

Microscopy, Spectroscopy, Surface Analysis
- Scienta Omicron ESCA 2SR XPS System $300.00 /hr
- Surface-Science-Instruments-SSX-100-XPS-System $130.00 /hr
- Keyence VK-X260 3D Laser Scanning Confocal Microscope $160.00 /hr
- Asylum-MFP3D-Bio-AFM-SPM $160.00 /hr
- Tencor Alpha Step 500 Stylus Profilometer $80.00 /hr
- WITec-Alpha300R-Confocal-Raman-Microscope $184.50 /hr
- Renishaw InVia Confocal Raman Microscope $172.50 /hr
- 3i-Marianias-Spinning-Disk-Confocal-Microscope $90.00 /hr
- Bruker Hyperion FT-IR Spectrometer & Microscope $160.00 /hr
- Bruker Vertex Vacuum FT-IR $160.00 /hr
- Cary 5000 UV Vis NIR Spectrometer $136.00 /hr
- Shimadzu UV-3600 UV-Vis-NIR Spectrometer $136.00 /hr
- Edinburgh FLS1000 Fluorescence and Lifetime Spectrometer $136.00 /hr
- Novocontrol Broadband Dielectric Spectrometer $22.50 + $136.00 /hr
Novocontrol Thermal Stimulated Depolarization Current (TSDC) $22.50 + $136.00 /hr
‡ $10 minimum charge

**Soft Matter/Polymer Analysis**

- TA Instruments DHR3 Single Head Rheometer $125.50 /hr
- Waters MALDI Micro MX (MALDI-TOF) $220.00 /sample
- JAI-LC911ONEXT-Recycling-Preparative-GPC $220.00 /sample
- Waters Ambient-Temperature GPC $89.00 /sample
- Waters Ambient-Temperature Aqueous GPC $89.00 /sample
- Waters Breeze DMSO-GPC $89.00 /sample
- TA Instruments Q500 Thermogravimetric Analyzer (TGA) $119.00 /sample
- TA Instruments Q1000 Modulated Differential Scanning Calorimeter (MDSC) $173.00 /sample

**X-Ray and Diffraction Analysis**

- Rigaku SmartLab X-Ray Diffractometer $130.00 /hr
- Bruker D8 General Area Detector Diffraction System (GADDS) $158.00 /hr
- Bruker D8 Powder Diffractometer $158.00 /hr
- Multiwire Back-Reflection Laue Detector $183.00 /hr

**Mechanical Properties Testing and Analysis**

- TA Instruments DMA Q800 Dynamic Mechanical Thermal Analysis (DMTA) $30 + $115.00 /hr
- TA Instruments Q400EM Thermomechanical Analysis (TMA) $87.00 /hr
- Micro Hardness Tester $15 + $15.75 /hr
- Micromechanical Analyzer $54.00 /hr
- Linkham Microscope Tensile Stage $62.00 /hr
- ATM Sonic sifter $27.00 /hr

**Thin Film Deposition, and Material Processing**

- Varian Thermal Bell Jar Evaporator Clark Hall $175.00 /use
- Sputter Deposition $230.00 /use
- KJL Magnetron Sputtering Tool $325.00 /sample
- Neocera EX200 Pulsed Laser Deposition System 115 + $23.75 /hr
- KSV-NIMA-KN4010 Dip Coater $20.4 + $43.00 /hr
- KSV-NIMA-KN2002 Langmuir Blodgett Trough $40 + $43.00 /hr
- Laurell WS-400A Spin Coater $30 + $43.00 /hr
Heat Treating

Lindberg Vacuum Tube Furnace (Clark Hall) $22 + $5.75 /hr
All controlled atmosphere tube furnaces, Bard Hall $22 + $5.75 /hr
All other furnaces and ovens (Labtemp, Lindberg, Vulcan, Hotpack, National) $12.25 + $5.75 /hr

Electronic & Magnetic Measurements

Quantum Design Physical Property Measurement Systems (PPMS) $71.4 + $36.00 /hr
Lakeshore Tabletop Magnetic-Cryogenic Probe System $32.25 /hr
Cascade CPS-06 Four Point Probe $18 + $32.25 /hr

Sample Preparation, Cutting, Polishing, etc.

Sample Prep

Enerpac Hydraulic Press $27.00 /hr
Buehler Simplemet II mounting press $20 + $27.00 /hr
Inert Gas Glove Box $45.00 /use
Fritsch-Planetary-Mill $42.00 /use
Ball Mill $16.00 /hr
Spex 8000 MIXER /MILL $43.00 /hr
Garlock GEM-T Jet mill $27.00 /hr

Cutting/Cleaning/Polishing

MicroMech Wafering Machine $30 + $54.00 /hr
Allied TechCut5 Precision High Speed Saw $130.00 /hr
Glass Bead Abrasive Unit (sand blasting)-Clark $43.00 /hr
SS White Sand Blasting Unit $30 + $43.00 /hr
Buehler SiC Grinding Papers-Bard $54.00 /use
Struers Rotopol $65.00 /hr
Branson Ultrasonic Bath (large) $22 $21.50 /hr

Welding/Bonding

WestBond-747630E Wire Bonder $15 + $31.50 /hr
TPT HB05 Manual Wire Bonder $15 + $31.50 /hr
Stationary Spot Welder Hughes HRW250B (Clark Hall) $22.50 /use

Test Equipment Lending Library

(8000 - Varian 979 Port Leak Detector $18 + $4.04 /hr
8001-8002 - Portable RGA Pump Stations (Extorr or SRS) $18 + $1.62 /hr)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Rate</th>
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<tr>
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<td>Extech DC and BK Precision AC Power Supplies</td>
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<td>Modline Two Color Pyrometer-Bard</td>
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